

1 - Router R1

Step 1: Configure R1 Basic

Settings and Device Hardening

```
Router (co nfi g)#no ip domain
lookup
Router (co nfi g)# hos tname R1
R1(con fig )#b anner motd
#Unaut horized Access is Prohib -
ited#
R1(con fig )#line console 0
R1(con fig -li ne) #pa sswor d
ciscoc onpass
R1(con fig -li ne) #login
R1(con fig -li ne) #exit
R1(con fig )#e nable secret
ciscoc npass
R1(con fig )#s ervice passwo -
rd- enc ryption
R1(con fig )#s ecurity passwords
min-length 10
R1(con fig )#u sername admin
secret admin1pass
R1(con fig)#ip domain name ccna-
p tsa.com
R1(con fig )#c rypto key
generate rsa
1024
```

```
R1(con fig)#ip ssh version 2
R1(con fig )#line vty 0 15
R1(con fig -li ne) #login local
R1(con fig -li ne) #tr ansport
input ssh
R1(con fig -li ne) #exit
```

Step 2: Configure router

interf aces.

```
R1(con fig )#i nte rface
Loopback 0
R1(con fig -if )#d esc ription
Loopback
R1(con fig -if)#ip address
209.16 5.201.1 255.25 5.2 55.224
R1(con fig -if )#ipv6 address
2001:d b8: aca d:2 09: :1/64
R1(con fig -if )#ipv6 address
fe80::1 link-local
R1(con fig -if )#exit
```

Configure subint erfaces

```
R1(con fig )#ipv6 unicas t-r -
outing
R1(con fig )#i nte rface
```

1 - Router R1 (cont)

```
> R1(config-subif)#ip address 10.19.8.65
255.255.255.224
R1(config-subif)#ipv6 address 2001:db8:-
acad:b::1/64
R1(config-subif)#ipv6 address fe80::1 link-
local
R1(config-subif)#interface g0/0/1.4
R1(config-subif)#encapsulation dot1Q 4
R1(config-subif)#description Management
R1(config-subif)#ip address 10.19.8.97
255.255.255.248
R1(config-subif)#ipv6 address 2001:db8:-
acad:c::1/64
R1(config-subif)#ipv6 address fe80::1 link-
local
R1(config-subif)#interface g0/0/1.6
R1(config-subif)#encapsulation dot1Q 6
native
R1(config-subif)#description Native
R1(config)#interface g0/0/1
R1(config-if)#no shutdown
```

2 - Configure S1 and S2

2 - Configure S1 and S2 (cont)

```
> 1024
S1(config)#ip ssh version 2
S1(config)#line vty 0 15
S1(config-line)#login local
S1(config-line)#transport input ssh
S1(config-line)#exit
S2(config)#username admin secret
admin1pass
S2(config)#ip domain name ccna-ptsa.com
S2(config)#crypto key generate rsa
1024
S2(config)#ip ssh version 2
S2(config)#line vty 0 15
S2(config-line)#login local
S2(config-line)#transport input ssh
S2(config-line)#exit
```

3 - Configure SVIs on S1 and S2

```
S1(config)#interface vlan 4
S1(con fig -if)#ip address
10.19.8.98 255.25 5.2 55.248
S1(con fig -if )#d esc ription
Management Interface
S1(con fig -if)#no shutdown
S1(con fig -if )#exit
S1(con fig)#ip defaul t-g ateway
10.19.8.97
S2(con fig )#i nte rface vlan 4
S2(con fig -if)#ip address
10.19.8.99 255.25 5.2 55.248
S2(con fig -if )#d esc ription
Management Interface
S2(con fig -if)#no shutdown
S2(con fig -if )#exit
S2(con fig)#ip defaul t-g ateway
10.19.8.97
```

```
g0/0/1.2
R1(con fig -su bif )#e nca psu -
lacion dot1Q 2
R1(con fig -su bif )#d esc -
ription Bikes
R1(con fig -su bif)#ip address
10.19.8.1 255.25 5.2 55.192
R1(con fig -su bif )#ipv6
address 2001:d b8: aca -
d:a ::1/64
R1(con fig -su bif )#ipv6
address fe80::1 link-local
R1(con fig -su bif )#i nte rface
g0/0/1.3
R1(con fig -su bif )#e nca psu -
lacion dot1Q 3
R1(con fig -su bif )#d esc -
ription Trikes
```

```
Switch1(config)#no ip domain
lookup
Switch 1(c onf ig) #ho stname S1
S1(con fig )#b anner motd
#Unaut horized Access is
Prohib itted!#
Switch 2(c onf ig)#no ip domain
lookup
Switch 2(c onf ig) #ho stname S2
S2(con fig )#b anner motd
#Unaut horized Access is
Prohib itted!#
S1(con fig )#line console 0
S1(con fig -li ne) #pa ssword
ciscoc onpass
S1(con fig -li ne) #login
S1(con fig -li ne) #exit
S1(con fig )#e nable secret
ciscoe npass
S1(con fig )#s ervice passwo -
rd- enc ryption
S2(con fig )#line console 0
S2(con fig -li ne) #pa ssword
ciscoc onpass
S2(con fig -li ne) #login
S2(con fig -li ne) #exit
S2(con fig )#e nable secret
ciscoe npass
S2(con fig )#s ervice passwo -
rd- enc ryption
Configure SSH
S1(con fig )#u sername admin
secret adminlpass
S1(con fig)#ip domain name cca-
p tsa.com
S1(con fig )#c rypto key
generate rsa
```

